

REMARKS

In the Office Action, the Examiner rejected claims 1-34, 51-68, 70, 72-74, and 76-78. Applicant respectfully requests reconsideration and allowance of all claims in view of the following remarks.

Transmittal of Evidence

As requested by the Examiner in the Response to Arguments, Applicant hereby submits copies of the pages of the reference relied upon in the previous and present response. Final Office Action, page 13. In particular, the relied upon reference is the NATIONAL ELECTRICAL CODE (2002 Ed.) produced by the National Fire Protection Association, which promulgates codes and standards for electrical wiring and equipment. Applicant respectfully requests entry of this evidence on the record.

Claim Rejections under 35 U.S.C. § 102

In the Office Action, the Examiner rejected claims 1-9, 12-21, 24-26, 64, and 66 under U.S.C. § 102(e) as being anticipated by Knox et al. (U.S. Publication No. 2004/0252421). The Examiner further rejected claims 1, 16, 27, 31, 34, and 51 under 35 U.S.C. § 102(b) as anticipated by Brown et al. (U.S. Patent No. 6,388,563). Applicant respectfully traverses these rejections.

Legal Precedent

Anticipation under 35 U.S.C. § 102 can be found only if a single reference shows exactly what is claimed. *Titanium Metals Corp. v. Banner*, 778 F.2d 775, 227 U.S.P.Q. 773 (Fed. Cir. 1985). For a prior art reference to anticipate under 35 U.S.C. § 102, every element of the claimed invention must be identically shown in a single reference. *In re Bond*, 910 F.2d 831, 15 U.S.P.Q.2d 1566 (Fed. Cir. 1990). To maintain a proper rejection under 35 U.S.C. § 102, a single reference must teach each and every limitation of the rejected claim. *Atlas Powder v. E.I. du Pont*, 750 F.2d 1569 (Fed. Cir. 1984).

Accordingly, Applicant needs only point to a single element not found in the cited reference to demonstrate that the cited reference fails to anticipate the claimed subject matter. The prior art reference also must show the identical invention “in as complete detail as contained in the ... claim” to support a *prima facie* case of anticipation. *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 1236, 9 U.S.P.Q. 2d 1913, 1920 (Fed. Cir. 1989).

Claim Rejections Relying on the Knox Reference

As stated in Applicant's previous Response to Office Action, Applicant respectfully submits that the Examiner's maintenance of the claim rejections in view of Knox is improper. Applicant appealed the Examiner's rejections under Knox to a pre-appeal panel. *See* Pre-Appeal Brief Request for Review submitted on May 18, 2007. The panel subsequently issued a decision in which it withdrew the Examiner's rejection and re-opened prosecution. Notice of Panel Decision from Pre-Appeal Brief Review mailed on July 23, 2007. In response to Applicant's objection of the continued reliance on Knox, the Examiner stated that it was implicit in the Office Action mailed on November 13, 2007, that only the rejection of claims 65, 67, 69, 71, 73, and 75 had been overturned by the Pre-Appeal Brief Panel. Final Office Action, page 13.

However, Applicant respectfully notes that the Panel Decision neither stated nor implied that only a small portion of the Examiner's rejections had been withdrawn. Indeed, the Decision stated that “[t]he rejection is withdrawn and a new Office action will be mailed.” Notice of Panel Decision from Pre-Appeal Brief Review (emphasis added). As the Pre-Appeal Brief Request for Review included several issues, Applicant respectfully submits that the Decision appears to indicate that all of the reviewed issues were decided in favor of the Applicant. Accordingly, Applicant respectfully requests the Examiner remove the rejection under 35 U.S.C. § 102 based on the Knox reference as the appealed rejection was withdrawn by the Pre-Appeal Brief Panel.

Furthermore, elements of the claims omitted from the Knox reference are discussed below. Similar claim elements found in multiple claims will be addressed together.

The Knox reference does not disclose a motor control unit configured to control a machine and/or motor.

Independent claim 1 recites, *inter alia*, “a modular control unit replaceably mountable to the machine mountable base, wherein the modular control unit comprises control circuitry configured to control the machine.” Independent claim 16 recites, *inter alia*, “a replaceable control unit removably coupled to the motor mountable base, wherein the replaceable control unit comprises control circuitry configured to control a motor.”

In contrast to the above recitations, the Knox reference discloses a user interface module 2 for interacting with a motor overload protector (MOP) 1. *See* Knox, ¶ [0103]. This user interface 2 does not control the motor to which the MOP 1 is applied. The Examiner asserted that the micro-controller 75 in the modular control unit 2 constitutes control circuitry configured to control the machine. Final Office Action, page 2. Specifically, the Examiner stated that “the circuitry of microcomputer 75 allows the user to enter control commands and receive status updates of the motor being controlled- par. 0104-0109.” *Id.* The Examiner further clarified this statement by alleging that “[t]he machine being controlled is the low voltage motor mentioned in paragraph 0002.” *Id.*

This assessment of the Knox reference is clearly erroneous. From the very passage cited by the Examiner, the Knox reference discloses that the micro-controller 75 controls the user interface 2, not a motor. *See* Knox, ¶ [0104]. Indeed, the Knox application is directed to “a digital programmable motor overload protector, which provides low noise, low distortion, and high accuracy data acquisition for low voltage motors.” Knox, ¶ [0002]. The user interface 2 enables a user to view the status of the motor and the overload relay. *See* Knox, ¶ [0108]. A digital signal processor (DSP) 55 in the MOP 1 controls the MOP’s operations. *See* Knox, ¶ [0101]. The user interface 2 merely provides an interface with the DSP 55 and does not control the motor. *See* Knox,

¶¶ [0220]-[0234]. Specifically, the micro-controller 75 in the user interface 2 operates to initiate the user interface 2, at which time control of the user interface 2 is taken over by the DSP 55. *See* Knox, ¶¶ [0220] and [0231]. To reiterate, a user interface does not constitute a control unit for controlling a motor as recited in the present claims.

For at least these reasons, the Knox reference does not anticipate independent claims 1, 16, 27, 31, 34, or 51, or their dependent claims. Applicant therefore respectfully requests removal of the rejections of independent claims 1, 16, 27, 31, 34, and 51, and their dependent claims, under 35 U.S.C. § 102 as these claims are clearly not anticipated by Knox.

The Knox reference does not disclose a base having a short-circuit protection device.

Independent claim 16 recites, *inter alia*, “a motor mountable base comprising a short-circuit tripping disconnect.” Dependent claim 2 recites, “wherein the motor protection device comprises a short-circuit protective device.”

The Examiner stated that Knox discloses a short-circuit protective device. *See* Final Office Action, pages 3 and 4. Specifically, the Examiner argued that a ground fault is a type of short-circuit and that Knox discloses ground fault protection. Final Office Action, page 3. However, Knox merely discloses “sensing and measuring of three phase electrical currents as well as ground fault current.” Knox, ¶ [0010]. The mere existence of a ground phase clearly does not disclose short-circuit protection, as short circuits are likely to occur between the ground phase and another phase. Furthermore, the Knox reference is directed to a motor overload protector. *See* Knox, Title. According to the National Electrical Code, “[a] fault, such as a short circuit or ground fault, is not an overload.” Exhibit A, p. 70-37 (emphasis added). Further, the NEC states that overload “does not include short circuits or ground faults.” Exhibit A, p. 70-292 (emphasis added).

For at least these reasons, the Knox reference does not anticipate independent claim 16, dependent claim 2, or their dependent claims. Applicant therefore respectfully requests removal of the rejections of independent claim 16, dependent claim 2, and their dependent claims, under 35 U.S.C. § 102 as these claims are clearly not anticipated by Knox.

Claim Rejections Relying on the Brown Reference

The Examiner rejected every independent claim of the present application as anticipated by the Brown reference. Although Applicant does not intend or suggest that the specification should be read into the claims, Applicant submits that the specification provides context that may be useful in examining the present claims. Embodiments of the present application relate to on-machine control of a machine. Application, page 1, lines 26-27. The on-machine control involves a machine-mountable base unit having a machine protection device and a modular, replaceable control unit. Application, page 1, lines 27-28. The machine protection device may include a short-circuit protection device. Application, page 5, lines 20-22. Furthermore, the control unit may be selected from a variety of different modular control units having different control features. Application, page 6, lines 15-17. As the control unit is configured to control the machine, it may include an output connector for interfacing with the machine. Application, page 9, lines 18-20.

Accordingly, independent claims 1, 16, 27, 31, 34, and 51 recite various combinations of a base having a motor protection device and a control unit coupled to the base having motor/machine control operability. In contrast, the Brown reference does not disclose at least these elements which are generally recited in the independent claims.

For an exemplary illustration of the deficiencies of the Brown reference, independent claim 1 will be particularly examined. Claim 1 recites:

1. A controller for a machine, comprising:
a machine mountable base comprising a motor
protection device housed in the base; and

a modular control unit replaceably mountable to the machine mountable base, wherein the modular control unit comprises control circuitry configured to control the machine.

In rejecting claim 1 the Examiner stated that Brown discloses:

[A] motor controller [Fig. 1, 100; col. 1 lines 46-52], comprising; a modular base [Fig. 1, 300] comprising motor protection circuitry [col. 9 lines 3-14]; ... and a modular motor control unit [Fig. 1, 200] coupled to the modular base [col. 2 lines 24-45] and comprising motor control circuitry [col. 3 lines 36-44] cooperatively operable with the motor protection circuitry.

Office Action, page 7 (emphasis in original).

In spite of the Examiner's assertions, the Brown reference does not disclose "a machine mountable base comprising a motor protection device housed in the base" and "a modular control unit replaceably mountable to the machine mountable base, wherein the modular control unit comprises control circuitry configured to control the machine" as recited in claim 1 (emphasis added). Rather, the emergency stop device 100 of Brown includes a switch unit 200 mounted to a control unit 300. The control unit 300 is coupled to a machine and controls the power source for the machine. *See* Brown, col. 4, lines 42-44 and 61-62. The modular switch unit 200, which is coupled to the machine-mounted control unit 300, switches from a normal state to an emergency state when necessary. Brown, col. 3, lines 18-21. Upon the switch unit 200 switching to the emergency state, the control unit 300 controls the machine's power source. Brown, col. 3, lines 24-29.

In summary, the Brown device includes a base 300 which controls the machine's power supply during an emergency and a modular unit 200 which indicates an emergency state to the base 300. Clearly, this disclosure does not anticipate the present claims directed to a motor protection base and a modular machine control unit coupled to the base. For at least these reasons, the Brown reference does not anticipate independent claims 1, 16, 27, 31, 34, or 51, or their dependent claims. Applicant therefore

respectfully requests removal of the rejections of independent claim claims 1, 16, 27, 31, 34, and 51 under 35 U.S.C. § 102 as these claims are clearly not anticipated by Brown.

Claim Rejections under 35 U.S.C. § 103(a)

The Examiner rejected claims 1, 2-9, 12-13, 15-16, 17-21, 24, 26-28, 30-32, 34, 51-56, 59, 60-68, 70, 72-74, and 76-78 under 35 U.S.C. § 103(a) as being unpatentable over Haudry et al. (U.S. Patent No. 6,879,230). In addition, the Examiner rejected claims 10-11 and 22-23 under 35 U.S.C. § 103(a) as being unpatentable over Knox in view of Hollenbeck (U.S. Patent No. 5,557,182). The Examiner further rejected claims 10-11, 22-23, and 57-58 under 35 U.S.C. § 103(a) as being unpatentable over Haudry et al. in view of Hollenbeck. Applicant respectfully traverses these rejections

Legal Precedent

The burden of establishing a *prima facie* case of obviousness falls on the Examiner. *Ex parte Wolters and Kuypers*, 214 U.S.P.Q. 735 (PTO Bd. App. 1979). Obviousness cannot be established by combining the teachings of the prior art to produce the claimed invention absent some teaching or suggestion supporting the combination. *ACS Hospital Systems, Inc. v. Montefiore Hospital*, 732 F.2d 1572, 1577, 221 U.S.P.Q. 929, 933 (Fed. Cir. 1984). The mere fact that references can be combined or modified does not render the resultant combination obvious unless the prior art also suggests the desirability of the combination. *In re Mills*, 916 F.2d 680, 16 U.S.P.Q.2d. 1430 (Fed. Cir. 1990). Accordingly, to establish a *prima facie* case, the Examiner must not only show that the combination includes all of the claimed elements, but also a convincing line of reason as to why one of ordinary skill in the art would have found the claimed invention to have been obvious in light of the teachings of the references. *Ex parte Clapp*, 227 U.S.P.Q. 972 (B.P.A.I. 1985). The Examiner must provide objective evidence, rather than subjective belief and unknown authority, of the requisite motivation or suggestion to combine or modify the cited references. *In re Lee*, 61 U.S.P.Q.2d. 1430 (Fed. Cir. 2002). Moreover, a statement that the proposed modification would have been “‘well within the

ordinary skill of the art” based on individual knowledge of the claimed elements cannot be relied upon to establish a *prima facie* case of obviousness without some objective reason to combine the teachings of the references. *Ex parte Levengood*, 28 U.S.P.Q.2d 1300 (Bd. Pat. App. & Inter. 1993); *In re Kotzab*, 217 F.3d 1365, 1371, 55 U.S.P.Q.2d. 1313, 1318 (Fed. Cir. 2000); *Al-Site Corp. v. VSI Int’l Inc.*, 174 F.3d 1308, 50 U.S.P.Q.2d. 1161 (Fed. Cir. 1999).

It is improper to combine references where the references teach away from their combination. *In re Grasselli*, 713 F.2d 731, 743, 218 U.S.P.Q. 769, 779 (Fed. Cir. 1983); M.P.E.P. § 2145. Moreover, if the proposed modification or combination of the prior art would change the principle of operation of the prior art invention being modified, then the teachings of the references are not sufficient to render the claims *prima facie* obvious. *In re Ratti*, 270 F.2d 810, 123 U.S.P.Q. 349 (CCPA 1959); *see* M.P.E.P. § 2143.01(VI). If the proposed modification or combination would render the prior art invention being modified unsatisfactory for its intended purpose, then there is no suggestion or motivation to make the proposed modification. *In re Gordon*, 733 F.2d 900, 221 USPQ 1125 (Fed. Cir. 1984); *see* M.P.E.P. § 2143.01(V).

Claim Rejections Relying on the Haudry Reference

Of the claims rejected as obvious over Haudry, claims 1, 16, 27, 31, 34, and 51 are independent. As with the Knox and Brown references, the Haudry reference does not disclose a motor protection base and a modular machine control unit coupled to the base as generally recited in the present independent claims. Again, Applicant will illustrate the deficiencies of the Haudry reference with respect to exemplary independent claim 1. Similar reasoning is applicable to all of the independent claims. Again, claim 1 recites:

1. A controller for a machine, comprising:
a machine mountable base comprising a motor protection device housed in the base; and
a modular control unit replaceably mountable to the machine mountable base, wherein the modular control unit

comprises control circuitry configured to control the machine.

In the rejection of claim 1, the Examiner stated that Haudry discloses:

[A] motor controller [Fig. 1], comprising: a modular base [Fig. 1, housing 1] comprising motor protection circuitry [Fig. 1; 14, 16, 18]; ...and a modular motor control unit [Fig. 1; comprising protection and control module 2 with removable control or communication module 3] coupled to the modular base [Fig. 3; col. 2 lines 34-38; col. 3 lines 5-15] and comprising motor control circuitry [col. 1 lines 24-33; col. 4 lines 7-16] cooperatively operable with the motor protection circuitry.

Final Office Action, pages 10-11 (emphasis in original).

As with the Knox reference, the Examiner has misinterpreted the disclosure of Haudry to include machine control which is not disclosed in the Haudry reference. Specifically, the Examiner cited two passages in the Haudry reference which allegedly disclose motor control circuitry. In contrast to the Examiner's interpretation, the first passage discloses that the communication module 3 communicates with the protection and control module 2. *See* Haudry, col. 1, lines 24-28; *see also* col. 3, lines 16-20. The protection and control module 2 in turn monitors the current through the switch and signals to a control part in the housing 1 when a fault is detected. *See* Haudry, col. 2, lines 40-50. Despite the Examiner's suggestion to the contrary, the Haudry reference does not disclose that either module 2 or 3 controls a machine as recited in the present independent claims.

The second passage cited by the Examiner describes an embodiment of the communication module 3 in which the module 3 may "control a display" or "provide information about the motor load to a controller." Haudry, col. 4, lines 11-15. Again, this passage does not disclose machine control as the Examiner asserted. On the contrary, this passage states that information may be sent from the communication module 3 to a controller, thus indicating that the module itself is not a machine controller.

In addition, the Examiner has not suggested that these deficiencies would be obvious in view of the Haudry reference. Rather, the Examiner argued that the Haudry reference explicitly discloses these elements of the claimed invention and merely lacks the disclosure that the housing 1 is mounted on a motor. Final Office Action, page 11. For at least these reasons, the Examiner has not set forth a *prima facie* case of obviousness over Haudry with respect to independent claims 1, 16, 27, 31, 34, or 51, or their dependent claims. Applicant therefore respectfully requests removal of the rejections of independent claim claims 1, 16, 27, 31, 34, and 51 under 35 U.S.C. § 103 as these claims are clearly not obvious in view of the Haudry reference.

Claim Rejections Relying on the Hollenbeck Reference in Combination with either the Knox reference or the Haudry reference

The Examiner relied on Knox and Hollenbeck in the rejection of dependent claims 10-11 and 22-23. Similarly, the Examiner relied on Haudry and Hollenbeck in the rejection of dependent claims 10-11, 22-23, and 57-58. Applicant respectfully submits that the present claims are allowable at least based on their dependence from allowable base claims, as discussed above. Claims 10 and 11 depend from claim 1, claims 22 and 23 depend from claim 16, and claims 57 and 58 depend from claim 34. The Knox and/or Haudry references fail to disclose all the elements of independent claims 1, 16, and 34, as set forth above, and the Hollenbeck reference fails to obviate the deficiencies of the primary reference with respect to these independent claims. Accordingly, Applicant respectfully requests removal of the rejections of dependent claims 10, 11, 22, 23, 57, and 58 under 35 U.S.C. § 103 as these claims are clearly not obvious over Knox and/or Haudry in view of Hollenbeck.

Conclusion

Applicant respectfully submits that all pending claims should be in condition for allowance. However, if the Examiner believes certain amendments are necessary to clarify the present claims or if the Examiner wishes to resolve any other issues by way of a telephone conference, the Examiner is kindly invited to contact the undersigned attorney at the telephone number indicated below.

Respectfully submitted,

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